

## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

### Listing of Claims:

1. (Currently Amended) A diffractive optical element comprising:

a first diffractive element,

a second diffractive element that is made of a material different from the first diffractive element and is cemented with the first diffractive element, and

a diffraction grating formed ~~on the~~ at cemented surfaces of the first and second diffractive elements,

wherein a shade is formed on a wall surface in each groove of the diffraction grating.

2. (Currently Amended) The diffractive optical element according to claim 1, wherein ~~the~~ a material of ~~one of these two~~ the first diffractive elements ~~element~~ is a glass for glass molding, and ~~that a material of the other~~ second diffractive element is resin.

3. (Currently Amended) The diffractive optical element according to claim 2, wherein ~~one of these two~~ the first

diffraction element element satisfies the following two conditional equations:

$$1.55 \leq n_dG \leq 1.70$$

$$50 \leq \nu_dG \leq 65$$

where  $n_dG$  denotes a refractive index of ~~one of these two the first~~ diffraction elements element at d-line, and  $\nu_dG$  denotes an Abbe number of ~~one of these two the first~~ diffraction elements element at d-line; and

wherein the ~~other of these two second~~ diffraction elements element satisfies the following two conditional equations:

$$1.50 \leq n_dR \leq 1.65$$

$$\nu_dR \leq 45$$

where  $n_dR$  denotes a refractive index of the ~~other of these two second~~ diffraction elements element at d-line, and  $\nu_dR$  denotes an Abbe number of the ~~other of these two second~~ diffraction elements element at d-line.

4. (Currently Amended) The diffraction optical element according to claim 3, wherein ~~the~~ minimum pitch of the diffraction grating grooves is 50  $\mu\text{m}$  or more.

5. (Currently Amended) The diffractive optical element according to claim 4, wherein ~~the~~ wall height of the diffraction grating grooves is 20  $\mu\text{m}$  or less.

6. (Currently Amended) The diffractive optical element according to claim 3, wherein ~~the~~ wall height of the diffraction grating grooves is 20  $\mu\text{m}$  or less.

7. (Currently Amended) The diffractive optical element according to claim 2, wherein ~~the~~ minimum pitch of the diffraction grating grooves is 50  $\mu\text{m}$  or more.

8. (Currently Amended) The diffractive optical element according to claim 7, wherein ~~the~~ wall height of the diffraction grating grooves is 20  $\mu\text{m}$  or less.

9. (Currently Amended) The diffractive optical element according to claim 2, wherein ~~the~~ wall height of the diffraction grating grooves is 20  $\mu\text{m}$  or less.

10. (Currently Amended) The diffractive optical element according to claim 1, wherein ~~one of these two the~~ first ~~diffraction grating grooves~~ diffraction grating grooves ~~element~~ satisfies the following two conditional equations:

$$1.55 \leq n_{dG} \leq 1.70$$

$$50 \leq \nu_{dG} \leq 65$$

where  $n_{dG}$  denotes a refractive index of one of these two the first diffractive elements element at d-line, and  $\nu_{dG}$  denotes an Abbe number of one of these two the first diffractive elements element at d-line; and

wherein the other of these two second diffractive elements element satisfies the following two conditional equations:

$$1.50 \leq n_{dR} \leq 1.65$$

$$\nu_{dR} \leq 45$$

where  $n_{dR}$  denotes a refractive index of the other of these two second diffractive elements element at d-line, and  $\nu_{dR}$  denotes an Abbe number of the other of these two second diffractive elements element at d-line.

11. (Currently Amended) The diffractive optical element according to claim 10, wherein ~~the~~ minimum pitch of the diffraction grating grooves is 50  $\mu\text{m}$  or more.

12. (Currently Amended) The diffractive optical element according to claim 11, wherein ~~the~~ wall height of the diffraction grating grooves is 20  $\mu\text{m}$  or less.

13. (Currently Amended) The diffractive optical element according to claim 10, wherein ~~the~~ wall height of the diffraction grating groovess is 20  $\mu\text{m}$  or less.

14. (Currently Amended) The diffractive optical element according to claim 1, wherein ~~the~~ minimum pitch of the diffraction grating grooves is 50  $\mu\text{m}$  or more.

15. (Currently Amended) The diffractive optical element according to claim 14, wherein ~~the~~ wall height of the diffraction grating groovess is 20  $\mu\text{m}$  or less.

16. (Currently Amended) The diffractive optical element according to claim 1, wherein ~~the~~ wall height of the diffraction grating groovess is 20  $\mu\text{m}$  or less.

Claims 17-20 (Cancelled)